

What is claimed:

1. Apparatus for treating contaminants in a fluid, comprising a housing having an inlet for said contaminated fluid, an ozone chamber in fluid communication with said inlet and in which said contaminated fluid is mixed with ozone, an ozone destruction chamber in fluid communication with said ozone chamber and in which the concentration of ozone in said mix is reduced, and an outlet for the flow of decontaminated fluid.
2. The apparatus of claim 1, wherein said ozone destruction chamber comprises a catalyst effective for converting ozone to diatomic and atomic oxygen.
3. The apparatus of claim 1, further comprising a filter in said housing.
4. The apparatus of claim 1, wherein said concentration is reduced to 0.1 ppm or less.
5. The apparatus of claim 1, further comprising at least one sensor for detecting the concentration of ozone at said output of said apparatus.
6. The apparatus of claim 5, further comprising a source of ozone in communication with said ozone chamber and a controller responsive to said sensor for terminating the flow of ozone from said source of ozone when said sensor detects an ozone concentration above a predetermined level.

7. The apparatus of claim 1, further comprising an anemometer for measuring the volume of said fluid at said inlet, and a controller responsive to said anemometer for controlling the amount of ozone in said ozone chamber.
8. Decontamination apparatus for destroying airborne organic contaminants, comprising:
 - a. an inlet adapted to receive and draw inlet air into said apparatus,
 - b. an ozone gas introduction system, adapted to infuse ozone gas into said inlet air in said apparatus,
 - c. a first mixing chamber wherein said ozone gas and said inlet air combine, and
 - c. a second mixing chamber where the concentration of said ozone in said combined ozone and air is reduced.
9. The apparatus of claim 8, wherein a sufficient and measurable amount of ozone is infused so as to effectively decontaminate said inlet air.
10. The apparatus of claim 9, wherein said sufficient amount is in excess of 100 ppm.
11. The apparatus of claim 8, wherein said ozone and said inlet air remain in said first mixing chamber for a sufficient, and measurable residence time so as to effectively decontaminate said inlet air.

12. The apparatus of claim 8, wherein said concentration of ozone is reduced via a catalyst and/or scrubber, said catalyst capable of reducing ozone into diatomic and atomic oxygen.
13. The apparatus of claim 8, wherein said catalyst reduces concentration of said ozone to below a predetermined level.
14. The apparatus of claim 13, wherein said level is 0.1 ppm.
15. The apparatus of claim 8, further comprising at least one sensor capable of detecting ozone at the output of said apparatus, wherein said ozone injection system is disabled if said at least one sensor measures an ozone level above a predetermined level.
16. The apparatus of claim 8, further comprising means to measure the volume of said inlet air, wherein the amount of said ozone infused is responsive to said measured volume.
17. The apparatus of claim 8, further comprising means for producing sonic or ultrasonic waves, wherein said waves facilitate the separation of said contaminants.
18. The apparatus of claim 17, wherein said sonic or ultrasonic wave producing means is located within said first mixing chamber.
19. The apparatus of claim 8, further comprising air drawing means to direct air into said inlet.
20. The apparatus of claim 8, further comprising a loopback mechanism, said mechanism allowing treated air exiting said

second mixing chamber to be directed to said inlet to be further treated.

21. A method for destroying air-borne bacterial, viral, or any other organic contaminant comprising:

- a. drawing air into a decontamination apparatus,
- b. introducing ozone gas into said inlet air,
- c. mixing said ozone and said inlet air , and
- d. reducing the concentration of said ozone in said mixed ozone and air.

22. The method of claim 21, wherein said ozone is injected in sufficient quantity to destroy said contaminants.

23. The method of claim 22, wherein said sufficient quantity is in excess of 100 ppm.

24. The method of claim 21, wherein said ozone and said inlet air are mixed for a sufficient time to destroy said contaminants.

25. The method of claim 21, wherein said ozone is reduced by mixing said mixed ozone and air with a catalyst.

26. The method of claim 25, wherein said catalyst reduces said ozone gas to diatomic oxygen and atomic oxygen.

27. The method of claim 25, wherein said catalyst is mixed with said ozone for a sufficient time to reduce concentration of said ozone to below a predetermined level.

28. The method of claim 27, wherein said predetermined level is 0.1 ppm.
29. The method of claim 21, further comprising the steps of monitoring the air at the outlet of said apparatus for its concentration of ozone gas and disabling said injection of ozone if said outlet air contains ozone concentration above a predetermined level.
30. The method of claim 21, further comprising the steps of measuring the volume of said inlet air and injecting a known concentration and flowrate of ozone in response to said measurement.
31. The method of claim 21, further comprising the step of injecting sonic or ultrasonic waves while mixing ozone with said inlet air.
32. The method of claim 21, wherein air which has been decontaminated is directed back into said decontamination apparatus.
33. The method of claim 21, wherein a known and controllable amount of inlet air can be mixed with a known and controllable amount of ozone for a known amount of time which relates to a known destruction efficiency of bio-contaminents.